## What is claimed is:

5

15

- A golf ball having a polyurethane or polyurea cover comprising:
  a core; and
  - a cover disposed about said core;

wherein said cover comprises the reaction product of an isocyanate copolymer of toluene diisocyanate and hexamethylene diisocyanate and at least one other reactant.

- 2. The golf ball of claim 1, wherein said other reactant is selected from the group consisting of (i) an agent having one or more hydroxyl groups, (ii) an agent having one or more amine groups, and (iii) combinations of (i) and (ii).
  - 3. The golf ball of claim 1, wherein said other reactant is a polyol.
  - 4. The golf ball of claim 1, wherein said other reactant is selected from the group consisting of polyether, polyester, polyamine, and mixtures thereof.
- 5. The golf ball of claim 1, wherein said isocyanate copolymer comprises the following chemical structure:

6. A golf ball comprising:

diisocyanate, and at least one other reactant.

- a solid core comprising one or more layers; and
- a cover comprising one or more layers disposed about said core;
- wherein at least one layer of said core or said cover comprises the
- reaction product of a polyisocyanate copolymer, said polyisocyanate copolymer comprising a copolymer of a hexamethylene diisocyanate and a toluene
- 7. The golf ball of claim **6**, wherein said other reactant is selected from the group consisting of (i) an agent having one or more hydroxyl groups, (ii) an agent having one or more amine groups, and (iii) combinations of (i) and (ii).
  - 8. The golf ball of claim **6**, wherein said polyisocyanate copolymer comprises the following chemical structure:

15

- 25 9. The golf ball of claim 6, wherein said reactant is a polyol comprising polyester, polyether or acrylic.
  - 10. The golf ball of claim **6**, wherein said reactant is a polyamine, polyamide, alkyd or an epoxy resin.

30

11. A method for making a golf ball component comprising polyurethane or polyurea comprising the steps of:

mixing a polyisocyanate copolymer of toluene diisocyanate and hexamethylene diisocyanate and at least one reactant;

chemically reacting said polyisocyanate copolymer and at least one reactant to form a reaction mixture adapted for reaction injection molding; and molding said reaction mixture to form a golf ball component.

- 12. The method of claim **11**, wherein said reactant is selected from the group consisting of polyether, polyester, polyamine, and mixtures thereof.
  - 13. The method of claim **11**, wherein said reaction mixture is selected from the group consisting of polyurethane, polyurea, and mixtures thereof.
  - 14. The method of claim **11**, wherein said reaction mixture is molded into a golf ball cover.
    - 15. The method of claim 11, wherein said reaction mixture is molded into a golf ball intermediate layer.

16. The method of claim 11, wherein said at least one reactant is selected from the group consisting of (i) an agent having one or more hydroxyl groups, (ii) an agent having one or more amine groups, and (iii) combinations of (i) and (ii).

25

20

15

5

17. The method of claim **11**, wherein said polyisocyanate copolymer comprises the following chemical structure:

- 18. The method of claim **11**, wherein said at least one further reactant includes a chain extender.
  - 19. A process for forming a golf ball component by a reaction injection molding technique comprising the steps of:

providing a polyisocyanate copolymer, said polyisocyanate copolymer comprising toluene diisocyanate and hexamethylene diisocyanate, and a polyol reactant;

chemically reacting and injecting said polyisocyanate copolymer and said polyol reactant in the closed mold to form a reaction mixture; and molding said reaction mixture in the closed mold to form a golf ball component.

20. The process of claim **19** further comprising the step of: molding said golf ball component about a core.

10

15